

What is claimed is:

1. Seed of wheat variety designated 25R35, representative seed of said variety having been deposited under ATCC Accession No. _____.
2. A wheat plant, or part thereof, produced by growing the seed of claim 1.
3. A tissue culture of regenerable cells produced from the plant of claim 2.
4. Protoplasts produced from the tissue culture of claim 3.
5. The tissue culture of claim 2, wherein cells of the tissue culture are from a tissue selected from the group consisting of kernel, head, stem, leaves, root, root tip, pollen, ovule, embryo and flower.
6. A wheat plant regenerated from the tissue culture of claim 3, said plant having all the morphological and physiological characteristics of wheat variety 25R35, representative seed of said wheat variety deposited under ATCC Accession No. _____.
7. A method for producing an F1 wheat seed, comprising crossing the plant of claim 2 with a different wheat plant and harvesting the resulting F1 wheat seed.
8. A method of producing a male sterile wheat plant comprising transforming the wheat plant of claim 2 with a nucleic acid molecule that confers male sterility.
9. A male sterile wheat plant produced by the method of claim 8.
10. A method of producing an herbicide resistant wheat plant comprising transforming the wheat plant of claim 2 with a transgene that confers herbicide resistance.
11. An herbicide resistant wheat plant produced by the method of claim 10.
12. The wheat plant of claim 11, wherein the transgene confers resistance to an herbicide selected from the group consisting of: imidazolinone, sulfonylurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.
13. A method of producing an insect resistant wheat plant comprising transforming the wheat plant of claim 2 with a transgene that confers insect resistance.
14. An insect resistant wheat plant produced by the method of claim 13.
15. The wheat plant of claim 14, wherein the transgene encodes a *Bacillus thuringiensis* endotoxin.

16. A method of producing a disease resistant wheat plant comprising transforming the wheat plant of claim 2 with a transgene that confers disease resistance.

17. A disease resistant wheat plant produced by the method of claim 16.

18. The wheat plant of claim 17, wherein the transgene confers resistance to *Fusarium graminearum* through the detoxification of deoxynivalenol, the principle mycotoxin causing Fusarium head blight.

19. A method of producing a wheat plant with decreased phytate content comprising transforming the wheat plant of claim 2 with a transgene encoding phytase.

20. A wheat plant with decreased phytate content produced by the method of claim 19.

21. A method of producing a wheat plant with modified fatty acid metabolism, modified protein metabolism or modified carbohydrate metabolism comprising transforming the wheat plant of claim 2 with a transgene encoding a polypeptide selected from the group consisting of modified glutenins, gliadins, stearyl-ACP-desaturase, fructosyltransferase, levasucrase, alpha-amylase, invertase and starch branching enzyme.

22. A wheat plant produced by the method of claim 21.

23. The wheat plant of claim 22 wherein the transgene confers a trait selected from the group consisting of waxy starch and increased amylose starch.

24. A wheat plant, or part thereof, having all the physiological and morphological characteristics of the variety 25R35, representative seed of such line having been deposited under ATCC Accession No. PTA-XXXX.

25. A method of producing a wheat plant with increased tolerance to water stress comprising transforming the wheat plant of claim 2 with a transgene encoding mannitol-1-phosphate dehydrogenase or late embryogenesis abundant (LEA) proteins.

26. A wheat plant with increased tolerance to water stress produced by the method of claim 25.

27. A method of introducing a desired trait into wheat variety 25R35 comprising:

- (a) crossing 25R35 plants grown from 25R35 seed, representative seed of which has been deposited under ATCC Accession No. PTA-XXXX, with plants of another wheat line that comprise a desired trait to produce F1 progeny plants, wherein the desired trait is selected from the group consisting of male sterility, herbicide resistance, insect resistance, disease resistance and waxy starch;
- (b) selecting F1 progeny plants that have the desired trait to produce selected F1 progeny plants;
- (c) crossing the selected progeny plants with the 25R35 plants to produce backcross progeny plants;
- (d) selecting for backcross progeny plants that have the desired trait and physiological and morphological characteristics of wheat variety 25R35 listed in Table 1 to produce selected backcross progeny plants; and

repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise the desired trait and all of the physiological and morphological characteristics of wheat variety 25R35 listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

28. A plant produced by the method of claim 27, wherein the plant has the desired trait and all of the physiological and morphological characteristics of wheat variety 25R35 listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

29. The plant, or part thereof, of claim 28 wherein the desired trait is herbicide resistance and the resistance is conferred to a herbicide selected from the group consisting of: imidazolinone, sulfonyleurea, glyphosate, glufosinate, L-phosphinothricin, triazine and benzonitrile.

30. The plant, or part thereof, of claim 28 wherein the desired trait is insect resistance and the insect resistance is conferred by a transgene encoding a *Bacillus thuringiensis* endotoxin.

31. The plant, or part thereof, of claim 29 wherein the desired trait is male sterility and the trait is conferred by a cytoplasmic nucleic acid molecule that confers male sterility.

32. A method of modifying fatty acid metabolism, phytic acid metabolism, carbohydrate metabolism, waxy starch content, gluten content, or water stress tolerance in wheat variety 25R35 comprising:

- (a) crossing 25R35 plants grown from 25R35 seed, representative seed of which has been deposited under ATCC Accession No. PTA-XXXX, with plants of another wheat variety that comprises a nucleic acid molecule encoding a polypeptide selected from the group consisting of phytase, stearyl-ACP desaturase, fructosyltransferase, levansucrase, alpha-amylase, invertase, starch branching enzyme, glutenin, gliadin, mannitol-1-phosphate dehydrogenase and a late embryogenesis abundant (LEA) protein;
- (b) selecting F1 progeny plants that have said nucleic acid molecule to produce selected F1 progeny plants;
- (c) crossing the selected progeny plants with the 25R35 plants to produce backcross progeny plants;
- (d) selecting for backcross progeny plants that have said nucleic acid molecule and physiological and morphological characteristics of wheat variety 25R35 listed in Table 1 to produce selected backcross progeny plants; and
- (e) repeating steps (c) and (d) three or more times in succession to produce selected fourth or higher backcross progeny plants that comprise said nucleic acid molecule and have all of the physiological and morphological characteristics of wheat variety 25R35 listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.

33. A plant produced by the method of claim 32, wherein the plant comprises the nucleic acid molecule and has all of the physiological and

morphological characteristics of wheat variety 25R35 listed in Table 1 as determined at the 5% significance level when grown in the same environmental conditions.